EPA

PC IAL HAZARDOUS WASTE SITE
...E INSPECTION REPORT

REGION	SITE NUMBER (to be assigned by Hq)
VI	TXD981153992

GENERAL INSTRUCTIONS: Complete Sections I and III through XV of this form as completely as possible. Then use the information on this form to develop a Tentative Disposition *(Section II)*. File this form in its entirety in the regional Hazardous Waste Log File. Be sure to include all appropriate Supplemental Reports in the file. Submit a copy of the forms to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force *(EN-335)*; 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET (or other identifier)		
Dr. David Fuston	406 19th St. NW (See Attachment A)		
C. CITY	**D. STATE**	**E. ZIP CODE**	**F. COUNTY NAME**
Childress TXD981153992	Tx.	79201	Childress

G. SITE OPERATOR INFORMATION

1. NAME	2. TELEPHONE NUMBER		
Dr. David Fuston, Mr. Parker	817/937-6226		
3. STREET	**4. CITY**	**5. STATE**	**6. ZIP CODE**
P.O. Box 418	Childress	Tx.	79201

H. REALTY OWNER INFORMATION *(If different from operator of site)*

1. NAME	2. TELEPHONE NUMBER	
Same as I.G.		
3. CITY	**4. STATE**	**5. ZIP CODE**

I. SITE DESCRIPTION

Veterinarian clinic, kennels, and corrals with onsite cattle dip vat

J. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE

II. TENTATIVE DISPOSITION *(complete this section last)*

A. ESTIMATE DATE OF TENTATIVE DISPOSITION (mo., day, & yr.)	B. APPARENT SERIOUSNESS OF PROBLEM
	☒ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE

C. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE (mo., day, & yr.)
Tom McCurdy Margaret Hulsey	512/467-6200	9-16-88

III. INSPECTION INFORMATION

A. PRINCIPAL INSPECTOR INFORMATION

1. NAME	2. TITLE	
Margaret Hulsey	Environmental Scientist	
3. ORGANIZATION		**4. TELEPHONE NO. (area code & no.)**
Engineering-Science, Inc.	7800 Shoal Creek Blvd. Suite 222W Austin, Tx. 78757	512/467-6200

B. INSPECTION PARTICIPANTS

1. NAME	2. ORGANIZATION	3. TELEPHONE NO.
Tom McCurdy	Engineering-Science, Inc.	512/467-6200

90068884

C. SITE REPRESENTATIVES INTERVIEWED *(corporate officials, workers, residents)*

1. NAME	2. TITLE & TELEPHONE NO.	3. ADDRESS
Mr. Parker	assistant manager 817/937-6226	Same as I.G.

SUPERFUND FILE

FEB 10 1993

REORGANIZED

PRELIMINARY REPORT
This does not constitute
final opinion of EPA

Reviewed by 6H-ES
Date 11/2/92

Continued From Front

INSPECTION INFORMATION (continued)

D. GENERATOR INFORMATION *(sources of waste)*

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE GENERATED
Dr. David Fuston	817/937-6226	Same as I.G.	pesticide residuals, rinsates, & empty pesticide containers

E. TRANSPORTER/HAULER INFORMATION

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE TRANSPORTED
Dr. David Fuston	817/937-6226	Sames as I.G.	empty pesticide containers

F. IF WASTE IS PROCESSED ON SITE AND ALSO SHIPPED TO OTHER SITES, IDENTIFY OFF-SITE FACILITIES USED FOR DISPOSAL.

1. NAME	2. TELEPHONE NO.	3. ADDRESS
Childress Municipal Landfill	817/937-3684	City Hall: 315 Commerce Street Childress, Texas 79201

G. DATE OF INSPECTION *(mo., day, & yr.)*	H. TIME OF INSPECTION	I. ACCESS GAINED BY: *(credentials must be shown in all cases)*
7-21-88	12:35 - 2:10 p.m.	☒ 1. PERMISSION ☐ 2. WARRANT

J. WEATHER *(describe)*

Partly cloudy, Sunny, Light breeze, Warm

IV. SAMPLING INFORMATION

A. Mark 'X' for the types of samples taken and indicate where they have been sent e.g., regional lab, other EPA lab, contractor, etc. and estimate when the results will be available.

1. SAMPLE TYPE	2. SAMPLE TAKEN *(mark 'X')*	3. SAMPLE SENT TO:	4. DATE RESULTS AVAILABLE
a. GROUNDWATER	X(1)	Pan American Laboratories, Inc. 5337 E. 14th St., Brownsville, Tx. 78521	9-7-88
b. SURFACE WATER			
c. WASTE			
d. AIR			
e. RUNOFF			
f. SPILL			
g. SOIL	X(3)	Same as above	9-7-88
h. VEGETATION			
i. OTHER *(specify)* Equipment blank for soil	X(1)	Same as above	9-7-88

B. FIELD MEASUREMENTS TAKEN *(e.g., radioactivity, explosivity, PH, etc.)*

1. TYPE	2. LOCATION OF MEASUREMENTS	3. RESULTS
Temperature	Onsite irrigation well	18°C.
Specific Conductance	Onsite irrigation well	3500 umhos/cm @ 25°C
pH	Onsite irrigation well	6.7

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IV. SAMPLING INFORMATION (continued)

C. PHOTOS

1. TYPE OF PHOTOS: [X] a. GROUND [ ] b. AERIAL

2. PHOTOS IN CUSTODY OF: See Attachment D

D. SITE MAPPED?

[X] YES. SPECIFY LOCATION OF MAPS: See Attachment D

E. COORDINATES

1. LATITUDE (deg.-min.-sec.): 34°25'59" N

2. LONGITUDE (deg.-min.-sec.): 100°13'33" W

V. SITE INFORMATION

A. SITE STATUS

[ ] 1. ACTIVE (Those inductrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)

[X] 2. INACTIVE (Those sites which no longer receive wastes.) Clinic is active. Toxaphene dip vat is inactive

[ ] 3. OTHER (specify): _____ (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?

[ ] 1. NO [X] 2. YES (specify generator's four-digit SIC Code): 0741, 0742

C. AREA OF SITE (In acres): Approximately 2 acres

D. ARE THERE BUILDINGS ON THE SITE?

[ ] 1. NO [X] 2. YES (specify): office, animal hospital, kennels, another building, 3 box cars

VI. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

'X'	A. TRANSPORTER	'X'	B. STORER	'X'	C. TREATER	'X'	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION		1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND	X	4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS./TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY	X	8. OTHER (specify): Dip vat residuals on ground areas. Empty 5-gallon metal toxaphene containers to Childress landfill.
					9. OTHER (specify):		

E. SUPPLEMENTAL REPORTS: If the site falls within any of the categories listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports you have filled out and attached to this for..

[ ] 1. STORAGE [ ] 2. INCINERATION [ ] 3. LANDFILL [X] 4. SURFACE IMPOUNDMENT [ ] 5. DEEP WELL

[ ] 6. CHEM/BIO/PHYS TREATMENT [ ] 7. LANDFARM [ ] 8. OPEN DUMP [ ] 9. TRANSPORTER [ ] 10. RECYCLOR/RECLAIMER

VII. WASTE RELATED INFORMATION

A. WASTE TYPE

[X] 1. LIQUID [X] 2. SOLID [ ] 3. SLUDGE [ ] 4. GAS

VII.A.2. Unknown quantities of empty 5-gallon toxaphene containers were generated.

B. WASTE CHARACTERISTICS

[ ] 1. CORROSIVE [ ] 2. IGNITABLE [ ] 3. RADIOACTIVE [ ] 4. HIGHLY VOLATILE

[X] 5. TOXIC [ ] 6. REACTIVE [ ] 7. INERT [ ] 8. FLAMMABLE

[ ] 9. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

None concerning waste management practices.

 Continue On Reverse

Continued From Front

WASTE RELATED INFORMATION (continue

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT: None	AMOUNT: None	AMOUNT: Unknown	AMOUNT: Unknown	AMOUNT: None	AMOUNT: Unknown
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
	X (1) OILY WASTES		X (1) ACIDS		X (1) LABORATORY, PHARMACEUT.
(1) PAINT, PIGMENTS	(2) OTHER(specify):	(1) HALOGENATED SOLVENTS	(2) PICKLING LIQUORS	(1) FLYASH	(2) HOSPITAL
(2) METALS SLUDGES		(2) NON-HALOGNTD. SOLVENTS	(3) CAUSTICS	(2) ASBESTOS	(3) RADIOACTIVE
(3) POTW		X (3) OTHER(specify): Pesticide carriers	X (4) PESTICIDES	(3) MILLING/MINE TAILINGS	(4) MUNICIPAL
(4) ALUMINUM SLUDGE			(5) DYES/INKS	(4) FERROUS SMELTING WASTES	X (5) OTHER(specify): Syringes were floating in the cattle dip vat
(5) OTHER(specify):			(6) CYANIDE	(5) NON-FERROUS SMLTG. WASTES	
			(7) PHENOLS	(6) OTHER(specify):	
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER(specify):		

D. LIST SUBSTANCES OF GREATEST CONCERN WHICH ARE ON THE SITE (place in descending order of hazard)

1. SUBSTANCE	2. FORM (mark 'X') a. SOLID	b. LIQ.	c. VAPOR	3. TOXICITY (mark 'X') a. HIGH	b. MED.	c. LOW	d. NONE	4. CAS NUMBER	5. AMOUNT	6. UNIT
Toxaphene		X		X				8001352	Unknown	--

VIII. HAZARD DESCRIPTION

FIELD EVALUATION HAZARD DESCRIPTION: Place an 'X' in the box to indicate that the listed hazard exists. Describe the hazard in the space provided.

X A. HUMAN HEALTH HAZARDS

Duplicate soil samples were collected on the south side of the concrete cattle dip vat. The laboratory reported 24,230 ppm in one of the samples and 10,971 ppm in the other sample. Syringes were observed floating in the dark green liquid in the dip vat. Although the dip vat is in the corral area, it is accessible on the southern side. A health hazard appears to exist at the site.

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Continued From Page 4

I. HAZARD DESCRIPTION *(continued)*

☒ **B. NON-WORKER INJURY/EXPOSURE**

See VIII.A.

☒ **C. WORKER INJURY/EXPOSURE**

See VIII.A.

☐ **D. CONTAMINATION OF WATER SUPPLY**

None observed

☒ **E. CONTAMINATION OF FOOD CHAIN**

If toxaphene residuals migrate to adjacent field where crops are grown, a possibility for contamination of the food chain exists.

☒ **F. CONTAMINATION OF GROUND WATER**

Although toxaphene was not detected in the irrigation well east of the cattle dip vat area, a potential exists for penetration to the groundwater, due to the high toxaphene concentrations detected in the soils adjacent to the dip vat, due to a possible groundwater depth from 15 to 40 feet, and due to moderately permeable soils.

☐ **G. CONTAMINATION OF SURFACE WATER**

None observed

Continued From Front

VIII. HAZARD DESCRIPTION *(continued)*

☒ **H. DAMAGE TO FLORA/FAUNA**

Domestic animals can be affected by the high toxaphene concentrations detected in soils adjacent to the dip vat. In addition, domestic animals can access the dip vat.

☐ **I. FISH KILL**

None observed

☒ **J. CONTAMINATION OF AIR**

Strong pesticide odors were emitted from the cattle dip vat.

☒ **K. NOTICEABLE ODORS**

Strong pesticide odors were detected in soils adjacent to the south side of the dip vat and in the cattle holding pen adjacent to the east side of the dip vat.

☒ **L. CONTAMINATION OF SOIL**

See VIII.A. In addition to the high toxaphene concentrations detected south of the cattle dip vat, other ground areas may be contaminated with toxaphene. These areas not only include the area east of the vat and other corral areas but the driveway separating the south side of the site from the adjacent business.

☐ **M. PROPERTY DAMAGE**

None observed

Continued From Page 6

VIII. HAZARD DESCRIPTION (continued)

☐ N. FIRE OR EXPLOSION

None observed

☒ O. SPILLS/LEAKING CONTAINERS/RUNOFF/STANDING LIQUID

Surface water runoff from the south side of the cattle dip vat drains onto the driveway separating the site from the adjacent business. Surface water runoff from the east side of the dip vat drains to the eastern cattle holding pen, where animals were held following the dipping process.

☐ P. SEWER, STORM DRAIN PROBLEMS

None observed

☐ Q. EROSION PROBLEMS

None observed

☒ R. INADEQUATE SECURITY

Although the cattle dip vat is in the corral area, access is available on the south side. Domestic animals can access the dip vat.

☐ S. INCOMPATIBLE WASTES

None observed

VIII. HAZARD DESCRIPTION *(continued)*

☐ T. MIDNIGHT DUMPING

None observed

☐ U. OTHER *(specify)*:

None observed

IX. POPULATION DIRECTLY AFFECTED BY SITE

A. LOCATION OF POPULATION	B. APPROX. NO. OF PEOPLE AFFECTED	C. APPROX. NO. OF PEOPLE AFFECTED WITHIN UNIT AREA	D. APPROX. NO. OF BUILDINGS AFFECTED	E. DISTANCE TO SITE *(specify units)*
1. IN RESIDENTIAL AREAS	5510	5510	1840	3 miles
2. IN COMMERCIAL OR INDUSTRIAL AREAS	1370	1370	137	3 miles
3. IN PUBLICLY TRAVELLED AREAS	17,000/day	17,000/day	--	3 miles
4. PUBLIC USE AREAS *(parks, schools, etc.)*	2350	2350	7 7	3 miles

X. WATER AND HYDROLOGICAL DATA

A. DEPTH TO GROUNDWATER *(specify unit)*	B. DIRECTION OF FLOW	C. GROUNDWATER USE IN VICINITY
15 to 40 feet	West	Irrigation, Industrial
D. POTENTIAL YIELD OF AQUIFER	**E. DISTANCE TO DRINKING WATER SUPPLY** *(specify unit of measure)*	**F. DIRECTION TO DRINKING WATER SUPPLY**
10 to 25 gpm**	See Attachment A, XIII.J.	See Attachment A, XIII.J.

G. TYPE OF DRINKING WATER SUPPLY

☐ 1. NON-COMMUNITY < 15 CONNECTIONS ☒ 2. COMMUNITY *(specify town)*: City of Childress (Greenbelt Lake near Clarendon)

☒ 3. SURFACE WATER ☐ 4. WELL See Attachment A, XIII.J.

**Cloud Chief Gypsum and Whitehorse Sandstone undivided.

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X. WATER AND HYDROLOGICAL DATA *(continued)*

H. LIST ALL DRINKING WATER WELLS WITHIN A 1/4 MILE RADIUS OF SITE

1. WELL	2. DEPTH *(specify unit)*	3. LOCATION *(proximity to population/buildings)*	4. NON-COMMUNITY *(mark 'X')*	5. COMMUNITY *(mark 'X')*
NONE				

I. RECEIVING WATER

1. NAME Segment 220 Pease River Red River Basin

☐ 2. SEWERS ☒ 3. STREAMS/RIVERS ☒ 4. LAKES/RESERVOIRS ☐ 5. OTHER *(specify)*:

6. SPECIFY USE AND CLASSIFICATION OF RECEIVING WATERS Surface water flows south-southeast into Lake Scott, thence to Scatterbranch Creek, thence to Segment 220, which is suitable for contact recreation and high quality aquatic habitation.

XI. SOIL AND VEGITATION DATA

LOCATION OF SITE IS IN: NONE

☐ A. KNOWN FAULT ZONE ☐ B. KARST ZONE ☐ C. 100 YEAR FLOOD PLAIN ☐ D. WETLAND

☐ E. A REGULATED FLOODWAY ☐ F. CRITICAL HABITAT ☐ G. RECHARGE ZONE OR SOLE SOURCE AQUIFER

XII. TYPE OF GEOLOGICAL MATERIAL OBSERVED

Mark 'X' to indicate the type(s) of geological material observed and specify where necessary, the component parts.

'X'	A. OVERBURDEN	'X'	B. BEDROCK *(specify below)*	'X'	C. OTHER *(specify below)*
X	1. SAND loam				
	2. CLAY				
	3. GRAVEL				

XIII. SOIL PERMEABILITY

St. Paul Silt Loam: 1.4×10^{-4} to 5.6×10^{-4} cm/sec

☐ A. UNKNOWN ☐ B. VERY HIGH ~~(100,000 to 1000 cm/sec.)~~ ☐ C. HIGH ~~(1000 to 10 cm/sec.)~~

☒ D. MODERATE ~~(10 to 1 cm/sec.)~~ ☐ E. LOW ~~(1 to .001 cm/sec.)~~ ☐ F. VERY LOW ~~(.001 to .00001 cm/sec.)~~

G. RECHARGE AREA

☐ 1. YES ☒ 2. NO 3. COMMENTS: Minor recharge to shallow groundwater from precipitation on outcrop

H. DISCHARGE AREA

☐ 1. YES ☒ 2. NO 3. COMMENTS:

I. SLOPE

1. ESTIMATE % OF SLOPE: 0 to 1 percent

2. SPECIFY DIRECTION OF SLOPE, CONDITION OF SLOPE, ETC.: East and Southeast

J. OTHER GEOLOGICAL DATA

See Attachment A

Continued From Front

XIV. PERMIT INFORMATION

List all applicable permits held by the site and provide the related information.

A. PERMIT TYPE (e.g., RCRA, State, NPDES, etc.)	B. ISSUING AGENCY	C. PERMIT NUMBER	D. DATE ISSUED (mo., day, & yr.)	E. EXPIRATION DATE (mo., day, & yr.)	F. IN COMPLIANCE (mark 'X')		
					1. YES	2. NO	3. UNKNOWN
Certified Pesticide Applicator License	TDA	4613	Not current				X

XV. PAST REGULATORY OR ENFORCEMENT ACTIONS

☒ NONE ☐ YES *(summarize in this space)*

NOTE: Based on the information in Sections III through XV, fill out the Tentative Disposition *(Section II)* information on the first page of this form.

SITE INSPECTION COMMENTS
DR. DAVID FUSTON
CHILDRESS, TEXAS
TXD981153992

DOCUMENTATION OF SITE ACTIVITIES

A Texas Water Commission (TWC) PA/SI program site inspection of the Dr. David Fuston site (TXD981153992) was conducted by Tom McCurdy and Margaret Hulsey of Engineering-Science, Inc. on July 21, 1988 from 12:35 p.m. to 2:10 p.m. An interview with Mr. Parker, co-owner of the veterinarian clinic, was conducted along with the site reconnaissance and sampling activities.

As shown in the site sketch and photographs included in Attachment D, the site is in a developed area. The site is bordered on all four sides by business or residential areas. A field, approximately 0.03 miles wide, separates the site from the eastern residences. Highway 83/62 separates the site from the business establishment on the west. The site occupies approximately 2 acres and consists of a veterinarian clinic and kennels with a cattle dip vat. This vat was used for dipping cattle in toxaphene prior to shipment to other states. East of the office are the kennels, an animal hospital facility, and another building with an attached box car. In addition to this box car, two other box cars are onsite within the corral area and are used for feed storage. Pens and corrals are east and south of the onsite buildings. The kennels and corrals are fenced, and the site is separated from the eastern field by a wire fence. The cattle dip vat and related chute are on the southern edge of the

site. Although the cattle dip vat is within the corral area, access is available on the south side, and the adjacent area is not enclosed.

Drinking water at the site is provided by the City of Childress's public water supply, which is the Greenbelt Reservoir near Clarendon, Tx. (30 miles west of Childress). Due to the high gypsum content in the groundwater, no domestic wells are in the vicinity of Childress. However, wells in the area are used for industrial and irrigation purposes. An onsite well is in the field east of the site. This well is used for some operation water but predominantly for commercial and private irrigation.

During the site reconnaissance, the condition of the area surrounding the cattle dip vat received special attention. Although the major portion of the liquid in the cattle dip vat probably was due to rainwater, strong pesticide odors were detected. The sandy soils immediately east and south of the dip vat contained strong pesticide odors. No stains were observed. Although most of the corral area was devoid of vegetation, livestock use of the area is suspected to the cause. Toxaphene is an insecticide that normally does not impact vegetation. The ground adjacent to the south side of the dip vat sloped south onto the driveway separating the site from the adjacent business. The ground east of the dip vat sloped east into the cattle holding pen used after the cattle dipping process.

Upon completion of the site survey, sampling was conducted. Three soil samples and two liquid samples were collected at the site. The requested analytical parameter was toxaphene.

A background soil sample (sample no. 3992-1) was collected in a grassy area adjacent to Highway 83/62 and west of the office and entrance drive. Duplicate soil samples (samples no. 3992-2 & -3) were composited from two soil areas south of the dip vat. The sampled areas were approximately five feet apart in the surface water runoff path onto the adjacent driveway. A liquid equipment blank sample (sample no. 3992-4) was collected from distilled water poured over decontaminated soil sampling equipment. A groundwater sample (sample no. 3992-5) was water collected from the irrigation well in the field east of the corral area.

SITE HISTORY AND WASTE MANAGEMENT PRACTICES

The history, waste management practices, and operations of the cattle dip vat at the Dr. David Fuston site, as described during the preliminary assessment (PA) interview with Dr. David Fuston and the site inspection (SI) interview provided by Mr. Parker, are presented in the following paragraphs.

Dr. David Fuston and Mr. Parker operate a veterinary clinic with an onsite concrete cattle dip vat. The vat slopes to a maximum depth of 6.5 feet and holds approximately 2600 gallons of liquid. The vat was used from the early 1970s, possibly 1972, until about 1982. At that time, recharging of the vat was stopped, and the toxaphene solution was allowed to evaporate. When it rains, the vat partially fills with water. Since Dr. Fuston cannot find a location for disposal, the leftover toxaphene residual remains in the vat.

During active operations of the dip vat, the residuals were scattered on the ground in the area when occasionally recharging the unit. The 5-gallon metal toxaphene containers were washed with water, and the rinsate was added to the dip vat. The containers were disposed eventually at the Childress landfill.

ASSESSMENT AND CONCLUSIONS

Sample results in Attachment D indicate no detectable toxaphene concentrations in the background soil sample nor in the irrigation well water. The laboratory reported 24,230 ppm and 10,971 ppm of toxaphene in the duplicate samples collected on the south side of the dip vat.

The toxaphene analysis was conducted 41 days from delivery at the laboratory (9/2/88 & 7/23/88, respectively). Although the analysis was performed one day after the EPA recommended holding time, a high toxaphene concentration still is evident. If any degradation of the sample occurred prior to analysis, the actual site soil concentration may be higher. In addition, the information obtained during this site investigation indicates that toxaphene is relatively immobile and may remain in the soil in excess of 14 years. Although the groundwater in the area is not used for domestic purposes, the groundwater is used for some industrial and irrigation purposes, which includes the onsite well. Groundwater in the sandy soil area is 15 to 40 feet deep. The site is in a developed area. The dip vat is accessible to domestic animals and people. The land slope from the south side of the dip vat is onto the driveway separating the site from the

adjacent business. Strong pesticide odors were detected not only in the soils containing the high toxaphene concentrations but also in the concrete dip vat and in the soils east of the vat in the cattle holding pen. Syringes were floating in the dip vat liquid. Based on the above information, a high apparent seriousness is assigned to the site. A follow-up site inspection by TWC is recommended for the Dr. David Fuston site, in order to determine the extent of contamination and to determine a disposal method for the dip vat and/or contents.

ATTACHMENT A

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT SUPPLEMENT SHEET

Instruction - This sheet is provided to give additional information in explanation of a question on the form T2070-3.

Corresponding number on form	Additional Remark and/or Explanation
I.B.	The site is on the east side of Highway 83/62, approximately 0.3 miles south of it junction with Highway 287.
XIII.J.	The following information is obtained from the Bureau of Economic Geology, Geologic Atlas of Texas, Plainview Sheet (Feb. 1968); TBWE, Bulletin 5706 (Mar. 1957); and TWC, Bulletin 6306 (Jul. 1963). The Cloud Chief Gypsum and the Whitehorse Sandstone (undivided) of Permian age outcrop at the site. They consist of interbedded sandstone, sand, shale, gypsum, and dolomite with a thickness of approximately 300 feet. Formations beneath the site yield small supplies of groundwater of poor chemical quality. The City of Childress has no suitable water supply in its immediate vicinity. Refer to Attachment B for a generalized cross-section of the area and a stratigraphic table showing geologic units and their water-bearing properties.

ATTACHMENT B

↘	Stratigraphic and Hydrogeologic Information
↘	Site Inspection Supplimental Report(s)
NA	Groundwater Monitoring System Supplimental Form
↘	Residential Well Sampling Information (Irrigation Well)
NA	Boring Logs and/or Monitoring Well construction and design

SURFACE IMPOUNDMENTS SITE INSPECTION REPORT
(Supplemental Report)

INSTRUCTION
Answer and Explain as Necessary.

1. TYPE OF IMPOUNDMENT

Cattle dip vat formerly used to dip cattle in toxaphene prior to out-of-state transport

2. STABILITY/CONDITION OF EMBANKMENTS

Concrete approximately 4 inches thick

3. EVIDENCE OF SITE INSTABILITY *(Erosion, Settling, Sink Holes, etc.)*

☐ YES ☒ NO

4. EVIDENCE OF DISPOSAL OF IGNITABLE OR REACTIVE WASTE

☐ YES ☒ NO

5. ONLY COMPATIBLE WASTES ARE STORED OR DISPOSED OF IN THE IMPOUNDMENT

☒ YES ☐ NO

6. RECORDS CHECKED FOR CONTENTS AND LOCATION OF EACH SURFACE IMPOUNDMENT

☐ YES ☒ NO None available

7. IMPOUNDMENT HAS LINER SYSTEM

☒ YES ☐ NO None other than concrete

7a. INTEGRITY OF LINER SYSTEM CHECKED

☐ YES ☒ NO

7b. FINDINGS

Not applicable

8. SOIL STRUCTURE AND SUBSTRUCTURE

area soils

9. MONITORING WELLS

☐ YES ☒ NO

10. LENGTH, WIDTH, AND DEPTH

LENGTH Apprx. 20' WIDTH Apprx. 3[illegible] DEPTH Slopes to maximum depth of 6.5 feet *

11. CALCULATED VOLUMETRIC CAPACITY

Approximately 2600 gallons * (*Depth and capacity provided by Dr. David Fuston)

12. PERCENT OF CAPACITY REMAINING

Approximately 1300 gallons (Estimated 50% of capacity)

13. ESTIMATE FREEBOARD

At least 3 feet

14. SOLIDS DEPOSITION

☒ YES ☐ NO syringes and floating trash

15. DREDGING DISPOSAL METHOD

Occasionally, residuals were disposed on ground areas when recharging vat

16. OTHER EQUIPMENT

None

This Document Contained Material Which Was Not Film/Scanned

Title Preliminary Report (oversized Document)

Please Refer to the File in Superfund Records Center

Table 1.--Stratigraphic units and their water-bearing properties, Red River, Sulphur River, and Cypress Creek Basins

Era	System	Series	Group	Formation	Occurrence	Thickness (ft.)	Lithology	Water-bearing properties
Cenozoic	Quaternary	Recent and Pleistocene, undifferentiated		Alluvium in Red River Valley, channel fills, sand dunes, and Seymour Formation	Alluvium exposed in regions I, II, III, and IV. Seymour exposed in region I and II.	0- 340+	Stratified sand, silt, clay, and gravel.	Yields small to large quantities of water. Water in Seymour Formation and in alluvium of Red River Valley used chiefly for irrigation. Sand dunes form major areas of local natural recharge.
	Tertiary	Pliocene		Ogallala Formation	Exposed in region I.	0- 900	Sand, clay, silt, gravel, and caliche.	Principle source of water in High Plains. Yields large quantities of fresh to slightly saline water to irrigation, industrial, and public-supply wells.
		Eocene	Claiborne	Sparta Sand	Exposed in region IV.	0- 50±	Stratified sand and clay.	Yields small quantities of water to domestic and livestock wells in Sulphur and Cypress Basins. Not an extensive aquifer in northeastern Texas.
				Mount Selman Formation	Exposed and in subsurface in region IV.	0- 400	Sand, clay, glauconite, lignite, and ironstone.	Yields small to moderate quantities of water chiefly to domestic and livestock wells. Water is typically high in iron content.
				Carrizo Sand	do	0- 100±	Fine to coarse sand in lower part; silt and clay in upper part.	Yields small to moderate quantites of water to wells where sands are thick.
				Wilcox Formation	Exposed and in subsurface in region IV.	0- 800	Fine to medium cross-bedded sand, clay, and lignite.	Principal source of water in eastern part of West Gulf Coastal Plain. Yields small to moderate quantities of water to public supply, industrial, and irrigation wells in large area.
		Paleocene	Midway		do	0- 900	Calcareous clay and limestone and some thin beds of fine sand or silt in upper part.	Not known to yield water to wells.
Mesozoic	Cretaceous	Gulf	Navarro		do	0- 300	Fossiliferous clay and hard lime marl.	Do.
				Nacatoch Sand	do	0- 450	Fine sand and marl; fossiliferous. Sand beds thickest near top; marl predominates near base.	Yields small to moderate quantities of water to public-supply, industrial, and irrigation wells.
			Taylor	Rocks of Taylor age	do	0- 750	Marl, hard chalk, and sandy marl.	Hard chalk beds yield small quantities of water to shallow dug wells.
			Austin	Rocks of Austin age	Exposed in region III and IV. In subsurface in region IV.	0- 400?	Hard fossiliferous chalk and marl.	Hard chalk beds yield small quantities of water to shallow dug wells.
					Exposed and in subsurface in region IV.	0- 400	Fine to medium fossiliferous sand, marl, and chalky marl. West of central Fannin County the Blossom Sand grades laterally into marl and chalk.	Yields small to moderate quantities of water to public-supply, domestic, and livestock wells on outcrop and short distances downdip. Not an aquifer west of central Fannin County.
				Rocks of Austin age	Exposed in region III and IV. In subsurface in regions III and IV.	0- 400?	Hard fossiliferous chalk and marl.	Hard chalk beds yield small quantities of water to shallow dug wells chiefly in Grayson County.
				Eagle Ford Shale	do	0- 675+	Gypsiferous shale; thin beds of limestone and sand near top.	Yields small quantities of water to domestic wells from upper sands.
				Woodbine Formation	do	0- 600	Medium to coarse cross-bedded furruginous tuffaceous sand, clay, and lignite. More massive beds of sand near base.	Principal source of water in central part of West Gulf Coastal Plain. Yields moderate quantities of water to public-supply, industrial, and irrigation wells.
		Comanche	Washita and Fredericksburg, undifferentiated		Exposed in region III. In subsurface in region III and IV.	0- 925+	Fossiliferous limestone, marl, and clay. Some sand beds near top.	Sand beds near top yield small quantities of water to shallow domestic wells. Limestone beds yield small quantities of water to dug wells.
			Trinity	Paluxy Sand	Trinity Group not differentiated west of Fannin County. Paluxy Sand differentiated in subsurface in regions III and IV.	300?-700?	Fine to medium sand, clay, and some limestone. Sand predominates in upper part.	West of Fannin County, upper part of the Trinity Group, undifferentiated, yields moderate quantities of water to public-supply, industrial and irrigation wells in region III. In Red River County Paluxy Sand yields moderate quantities of water to irrigation wells.
				Glen Rose Limestone	In subsurface in regions III and IV.	0-2,800	Alternating series of fossiliferous limestone, marl, and some sand. Anhydrite beds near middle of formation. West of Fannin County, Trinity Group is predominantly sand and Glen Rose Limestone is not differentiated.	Glen Rose Limestone not known to yield water to wells.
				Travis Peak	Trinity Group not differentiated west of Fannin County. Travis Peak Formation differentiated in subsurface in regions III and IV.	200±-1,800±	Fine to coarse sand, clay, and basal gravel and conglomerate.	West of Fannin County lower part of Trinity Group, undifferentiated, yields moderate quantities of fresh to slightly saline water to public-supply and industrial wells. East of Grayson County no wells are known to tap the Travis Peak Formation.
	Jurassic				In subsurface of region IV.	0-3,500+	Sandstone, shale, limestone or dolomite, and salt.	Not known to yield water to wells.
	Triassic		Dockum		Exposed and in subsurface of region I.	0-1,400+	Shale and sandy shale, crossbedded sandstone, and conglomerate.	Yields small to moderate quantities of water to wells.
Paleozoic	Permian	Guadalupe	Whitehorse		Exposed and in subsurface of regions I and II.	0-1,200+	Fine sandstone, gypsum and anhydrite, shale, and dolomite.	Yields small to moderate quantities of fresh to moderately saline water to public-supply and irrigation wells.
			Pease River	Dog Creek Shale	do	0- 250±	Shale, anhydrite and gypsum, and dolomite. Anhydrite and gypsum commonly cavernous.	Yields small to moderate quantities of slightly to moderately saline water to irrigation wells locally.
				Blaine Gypsum	do	0- 250±	Anhydrite and gypsum, shale, and dolomite. Anhydrite and gypsum commonly cavernous.	Yields moderate to large quantities of slightly to moderately saline water to irrigation wells.
				Flowerpot Shale and San Angelo Sandstone, undifferentiated	Exposed in region II. In subsurface in regions I and II.	0- 400±	Shale, anhydrite, and gypsum. Sandstone, shale, and some gypsum in lower part.	Yields small to moderate quantities of water to wells. Most wells yield slightly to moderately saline water although some fresh water is obtained locally.
		Leonard	Clear Fork		do	0-1,800	Dolomite, limestone, and shale. Some thin beds of anhydrite, gypsum, and sandstone.	Yields small quantities of fresh to moderately saline water to wells.
		Wolfcamp	Wichita		Exposed in regions II and III. In subsurface in regions I and II.	0-1,800±	Shale, sandstone, and fossiliferous limestone. Near outcrop, sandstone is more abundant in lower part than in upper part.	Yields small quantities of water to domestic and public-supply wells. Fresh to slightly saline water extends to greater depths in eastern part of outcrop in Montague County than in western part.
	Pennsylvanian	Upper	Cisco		Exposed in regions II and III. In subsurface in regions I, II, and III. Not known to underlie region IV.	0-1,000±	Shale, sandstone, fossiliferous limestone, and conglomerate.	Yields small quantities of water to domestic and public-supply wells.
		Paleozoic Rocks, undifferentiated			Underlies all of Red River Basin	14,000+	Shale, limestone, dolomite, sandstone, and evaporites.	Not known to yield water to wells.

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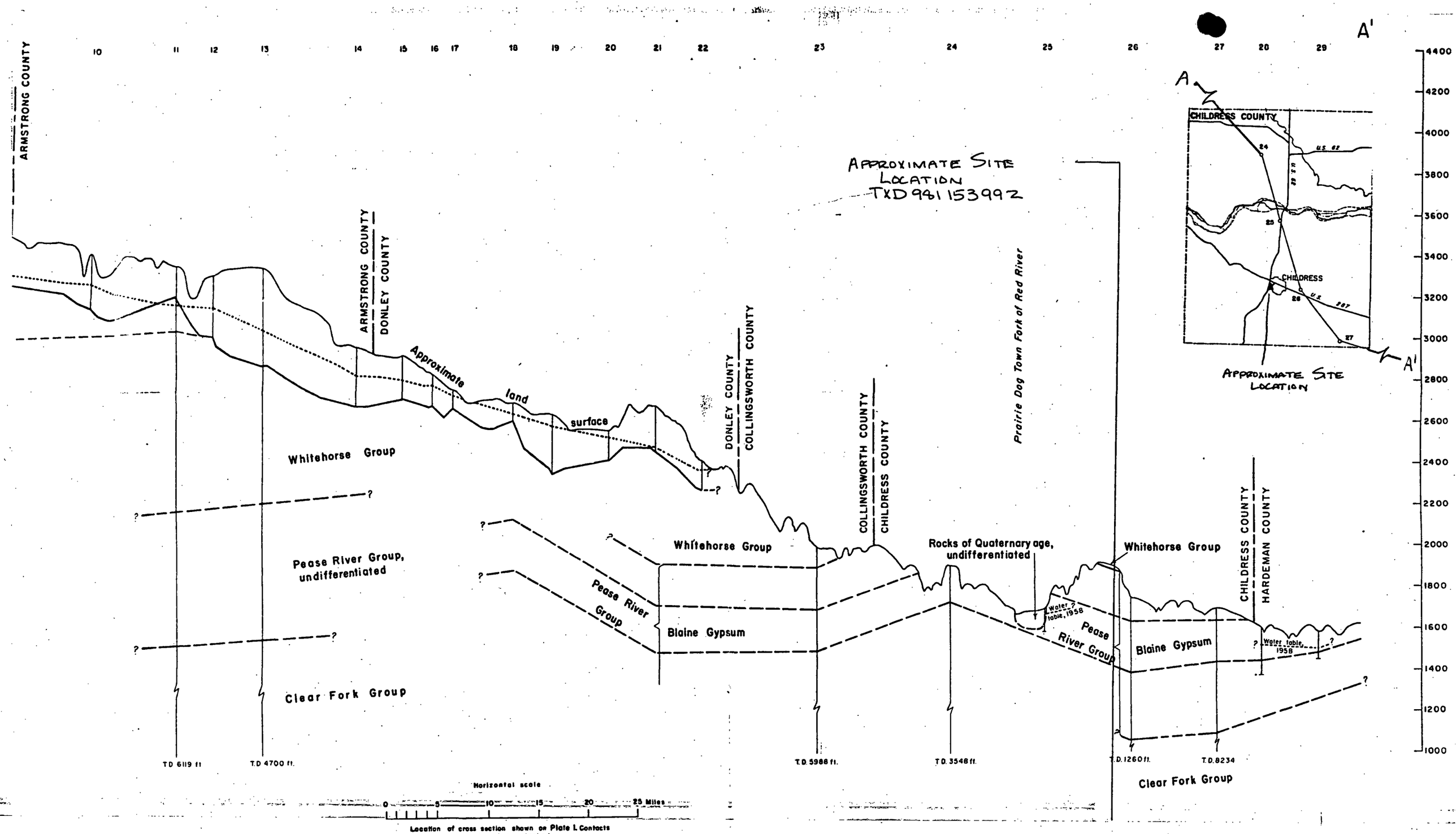
Title Table 1 -- Stratigraphic units and their water-bearing properties, Red River, Sulphur River, and Cypress Creek Basins (Oversized Document)

Please Refer to the File in Superfund Records Center



APPROXIMATE SITE LOCATION
TXD981153992

FROM T.W.C. BULLETIN 6306, JULY 1963

Plate 5

Geologic Cross Section A-A'

RESIDENTIAL WELL SAMPLING INFORMATION

1. Name, address and phone number of resident (include county and zip code)

   Dr. David Fuston Veterneriam Clinic 817/937-6226

   406 19th St. N.W. (Highway 62/83)

   Childress, Texas 79201

   Childress County

2. Date well was dug unknown

3. Depth of well * 80 to 85 feet

4. Depth to static water Approximately 50 feet. Water in some areas encountered at 15 feet.

5. Is the well cased? Yes *Yes No

   If so, to what depth? *80 to 85 feet

   What type of casing is used? *metal

6. Is well screened? Yes*possibly No

7. How much is the well pumped? (Only for residential use or for use in watering livestock?) *used primarily for irrigation, some operations.

8. Any other pertinent information? *Information provided by Mr. Parker.

   The well is in the field east of the clinic, which is on the east side of Highway 83/62, approximately 0.3 miles south of Highway 287.

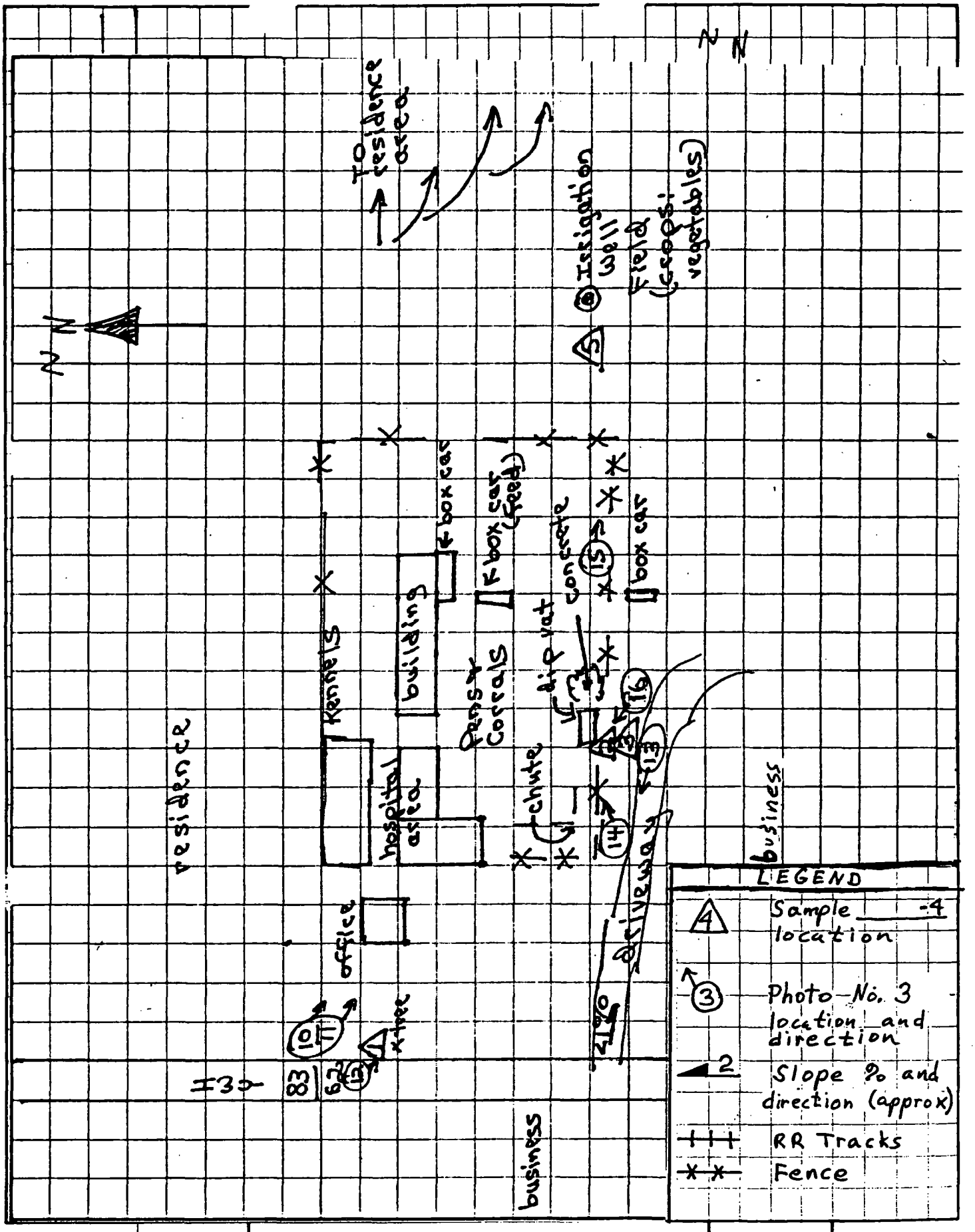
ATTACHMENT C

NA Groundwater Monitoring Data

NA Report(s) from Previous Site Investigation(s)

ATTACHMENT D

- ✓ Site sketch
- ✓ Laboratory data
- ✓ Chain-of-Custody form(s)
- ✓ Topographic map
- NA Floodplain map
- ✓ Photographs



ENGINEERING-SCIENCE
7800 SHOAL CREEK BOULEVARD
SUITE 222 WEST
AUSTIN, TEXAS 78757
(512) 467-6200

PROJECT TWC PA/SI Part 2 Site Sketch
TXD 981153992 (Dr. D. Fuston)

DATE 9/5/88
BY MSH

SHEET 1
OF 1

The American Association for
Laboratory Accreditation
Chemical field of testing

pan american laboratories, inc.

Analytical and Consulting Chemists
5337 East 14th Street Brownsville, Texas 78521 (512) 831-4266 or 831-4245

September 7, 1988

CERTIFICATE OF ANALYSIS

For Engineering Science, Inc.
Address 7800 Shoal Creek Blvd. Suite 222 West
Austin, Texas 78757
Project No.: AU095 Project Name: TXD981153992
Sample marked W. Office 3992-1

Received July 23, 1988 Lab. No. 99109

Analysis	Extraction Date	Analysis Date	Units	Analytical Results
Toxaphene	07/25/88	09/02/88	mg/kg	<0.1

RESPECTFULLY SUBMITTED,

PAN AMERICAN LABORATORIES, INC.

Mary Lipps

Unless otherwise stated, sample was submitted by Client

The American Association for
Laboratory Accreditation
Chemical field of testing

pan american laboratories, inc.

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September 7, 1988

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For Engineering Science, Inc.
Address 7800 Shoal Creek Blvd. Suite 222 West
Austin, Texas 78757
Project No.: AU095 Project Name: TXD981153992
Sample marked Vat Area 3992-2

Received July 23, 1988 Lab. No. 99110

Analysis	Extraction Date	Analysis Date	Units	Analytical Results
Toxaphene	07/25/88	09/02/88	mg/kg	24,230

RESPECTFULLY SUBMITTED,

PAN AMERICAN LABORATORIES. INC.

Mary Lipps

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Chemical field of testing

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Analytical and Consulting Chemists
5337 East 14th Street Brownsville, Texas 78521 (512) 831-4266 or 831-4245

September 7, 1988

CERTIFICATE OF ANALYSIS

For Engineering Science, Inc.
Address 7800 Shoal Creek Blvd. Suite 222 West
Austin, Texas 78757
Project No.: AU095 Project Name: TXD981153992
Sample marked Vat Area 3992-3

Received July 23, 1988 Lab. No. 99111

Analysis	Extraction Date	Analysis Date	Units	Analytical Results
Toxaphene	07/25/88	09/02/88	mg/kg	10,971

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PAN AMERICAN LABORATORIES, INC.

Mary Lipps

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Chemical field of testing

pan american laboratories, inc.

Analytical and Consulting Chemists
5337 East 14th Street Brownsville, Texas 78521 (512) 831-4266 or 831-4245

September 7, 1988

CERTIFICATE OF ANALYSIS

For Engineering Science, Inc.
Address 7800 Shoal Creek Blvd. Suite 222 West
Austin, Texas 78757
Project No.: AU095 Project Name: TXD981153992
Sample marked Equipment Blank 3992-4

Received July 23, 1988 Lab. No. 99112

Analysis	Extraction Date	Analysis Date	Units	Analytical Results
Toxaphene	07/25/88	09/02/88	mg/l	<0.001

9/2/88

RESPECTFULLY SUBMITTED,

PAN AMERICAN LABORATORIES. INC.

Mary Lipps

Unless otherwise stated, sample was submitted by Client

The American Association for
Laboratory Accreditation
Chemical field of testing

pan american laboratories, inc.

Analytical and Consulting Chemists
5337 East 14th Street Brownsville, Texas 78521 (512) 831-4266 or 831-4245

September 7, 1988

CERTIFICATE OF ANALYSIS

For Engineering Science, Inc.
Address 7800 Shoal Creek Blvd. Suite 222 West
Austin, Texas 78757
Project No.: AU095 Project Name: TXD981153992
Sample marked Irrig. Well 3992-5

Received July 23, 1988 Lab. No. 99113

Analysis	Extraction Date	Analysis Date	Units	Analytical Results
Toxaphene	07/25/88	09/02/88	mg/l	<0.001

RESPECTFULLY SUBMITTED,

PAN AMERICAN LABORATORIES. INC.

Mary Lipps

Unless otherwise stated, sample was submitted by Client

Engineering-Science, Inc.
7800 Shoal Creek Blvd. Suite 222W
Austin, Tx. 78757   512/467-6200

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
A4095	TXD981153992

SAMPLERS (Signatures): Tom McCurdy (MSH) Margaret Hubley (7/21/88)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TOXAPHENE						REMARKS
													Preservative: Ice@~4°C
3992-1	7/21	1315		X	W. Office	1	X						
3992-2	7/21	1340	X		Vat Area.	1	X						
3992-3	7/21	1340	X		Vat Area	1	X						
3992-4	7/21	1345		X	Equip. Blank	2	X						
3992-5	7/21	1320		X	Irrig. Well	3	X						

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Margaret Hubley	7/22/88 1055	Sharolyn D. Wagner		7/23/88 11:45AM	M. Lipps
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for lab. by: (Signature)	Date/Time	Remarks	
		William Whyte	7/25/88 9:31AM		

Federal Express Airbill Number: 6983768002

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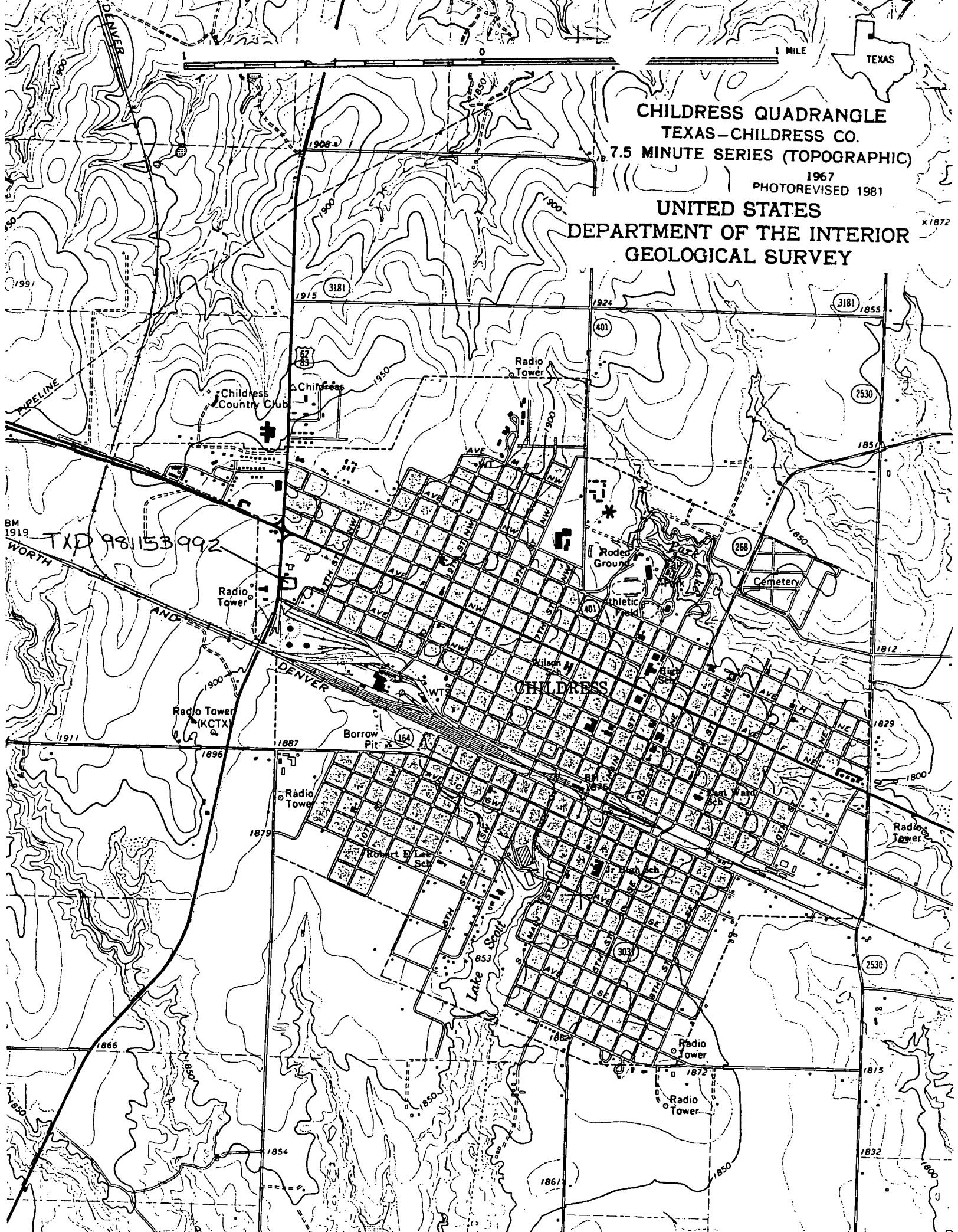
Title Certificate of analysis and Childress Quadrangle

Please Refer to the File in Superfund Records Center


CHILDRESS QUADRANGLE
TEXAS—CHILDRESS CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
1967
PHOTOREVISED 1981
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
TEXAS
1 MILE
0
TXD 981153992
CHILDRESS
Childress Country Club
Radio Tower
Radio Tower (KCTX)
Borrow Pit
Rodeo Ground
Athletic Field
Park
Cemetery
Lake Scott
Robert E Lee Sch
Jr High Sch
High Sch
Wilson Sch
WT
DENVER
WORTH
AND
PIPELINE
BM 1919
BM 1876